

AMENDMENT(S) TO THE SPECIFICATION

Page 13, beginning at line 8, please amend the paragraph as follows:

B1
Fig. 8 demonstrates a counterpulsator intended to accomplish a mirrored blood pressure curve in an artery and accomplish a pressure amplification with variable gear. Two piston pumps 24a and 24b are interconnected via the piston rods 28, 34 and a regulating mechanism 30. One piston pump 24a is directly connected to one of the ventricles 12 or 17 and the piston pump 24b is connected directly to the artery 15 or 20. The regulating mechanism 30 may be adjusted by the regulator 43 (shown in Fig. 15) in the way that the gear i.e. the length of the levers 33 may be adjusted, and thereby the pressure of the tube 44 from the piston pump 24b may be varied. In systolic phase, both piston pumps work as hydraulic motors and deliver their energy to the return spring 27. In diastolic phase, the return spring delivers the majority of its energy to 24b, which then works as a pump. In this example, no valves and no regulating mechanism are needed. The piston pumps 24a and 24b work in counterphase with the beats of the heart in the sense that 24a and 24b work as motors when the heart works as a pump (in systolic phase) but work as pumps when the heart fills with blood (diastolic phase). This is very important for the arterial mean pressure as well as for the arterial pressure in diastole, and thereby for the perfusion of the heart itself (the function of the coronary circulation) which takes place mainly in diastole.